SECTION 2

GETTING STARTED

2.1 SPECS 2.0 New Features: SPECS 2.0 represents a significant change in functionality. The main element first noted is the standardized Windows type of human interface. Specific changes include:

a. Everything now flows from the top line menu. The old WPARM executable (wparm.exe) has been incorporated into the Visual Basic coding of SPECS 2.0 and the stand alone executable is no longer required.

b. There is now a Query Manager, which allows a set of general queries to be distributed to all users. Any user may import or export the queries. There is a good size list of queries already embedded in SPECS as released. More queries may be released, based on field needs, at any time. Updates to the SPECS queries will be coordinated through the DCMC Software Center.

c. The Import and Export function have been speeded up significantly. Try them, you will be pleasantly surprised.

d. SPECS now generates an automated Surveillance Plan Appendix for each contract. The intend is to give the Software Professionals basic information and starting point in developing surveillance plans. This plan should be combined with a comprehensive corporate and program level plans.

e. Historic data is now collected for SLOC changes, contract end date changes and Environmental Factors. Any change to contract information can be documented.

f. The Cognizant SSP and the Reviewer's name have been combined into a name pick list. There is also a name clean up utility to allow making all variations of a single user's name the same. A new naming convention of First Initial , period, space, last name must be used. Example: D. Fox.

g. SPECS now will save one "other" language and one "other" specification for each BCI record. This is entered as text and can be recalled later for reuse.

h. The Customer and Facility Overrides have been removed. The program now has slider bars that adjust the percentage of surveillance to be performed. Technical document reviews and processes can now be rated at 0 to 100 percent of the estimated values. Activities and Non-Developmental may be rated at 0 to 300 percent of the estimated values.

i. SPECS now creates many more reports and disk files for a variety of uses.

j. There is now a capability to utilize SPECS in closed areas, where classified processing requirements are in effect. Personnel in areas that must have restricted access will have the needed information provided to utilize this function.

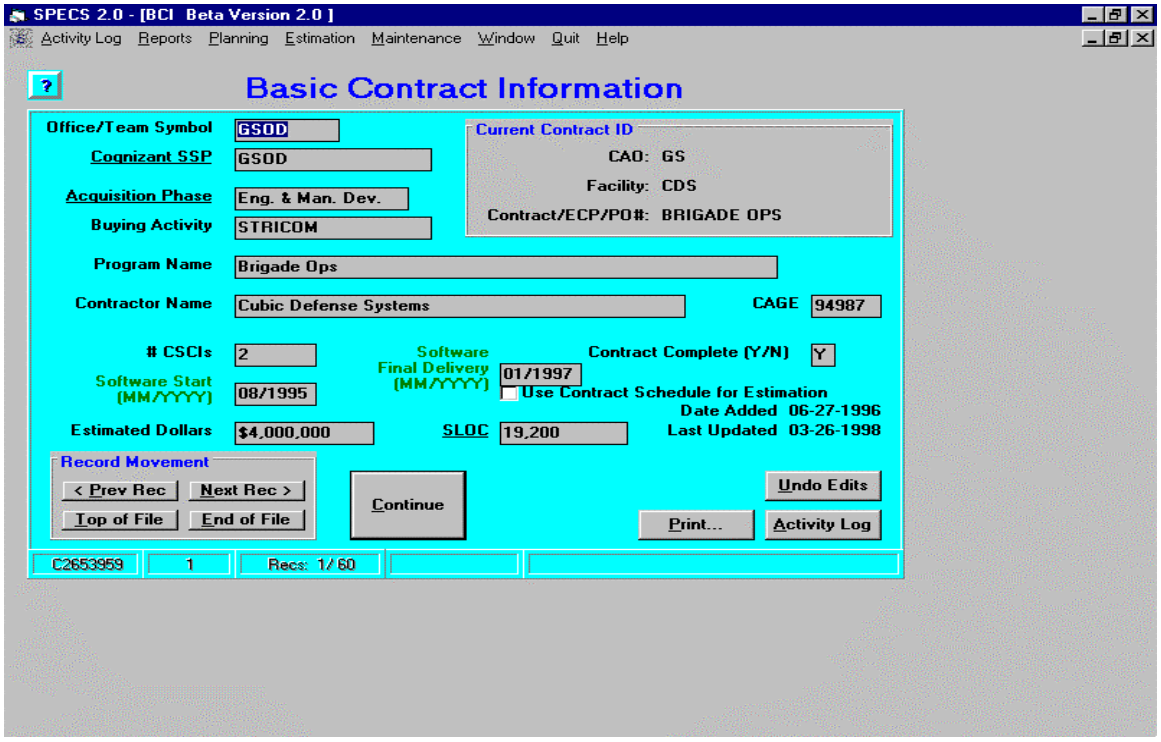
k. For Security reasons, SPECS v2.0 Should not reside on CAO Local Network Area (LAN). It should be installed on the Software Professionals' computers.

We recommend that you complete reading this manual before start using SPECS 2.0.

2.2 Recommended Process Flow for Data Entry: The following sections described a recommended process to follow in entering data into SPECS. Assume that SPECS has not been used in your facility. To begin the input process, it is necessary to set up a CAO, a Facility and a Contract.

2.2.1 Identify your assigned contracts: The first step prior to entering any data in SPECS is to lay out your population of contracts. Determine if any contract requires an average set of surveillance factors. To do this, evaluate your contracts for those that have unusual CSCI requirements that deviate from the normal experience of the contractor in question. Those CSCIs that have, for example, Ada and C developed by two different teams, may require an average rating for the environmental/surveillance factors used by the Environmental Factors screen. Please see Appendix F, Weighted Averaging calculations.

2.2.2 Establishing Basic Contract Information (BCI): Once you have laid out your population of contracts, you will need to establish a Basic Contract Information record. Please see Section 3: BCI, for more details. Using the SPECS Top Line Menu select "Planning" and then select "BCI/Record/Add", enter the CAO name, Facility name, then the contract number. This process should be repeated until all Facilities and contracts are entered (it is mandatory to have at least the "Software Start" and "Software Final Delivery" dates identified before exiting the BCI screen).



BASIC CONTRACT INFORMATION WINDOW

***Please Note**:*

1. In an effort to maintain Non-Development specific comments in a single location, each facility should establish a Dummy BCI record. All Non-Development specific activities would be tracked under that BCI record. The important point to remember when establishing a Dummy BCI record, is that both the SLOC count and Estimated Dollar values must be "1".

Example: Dummy /1

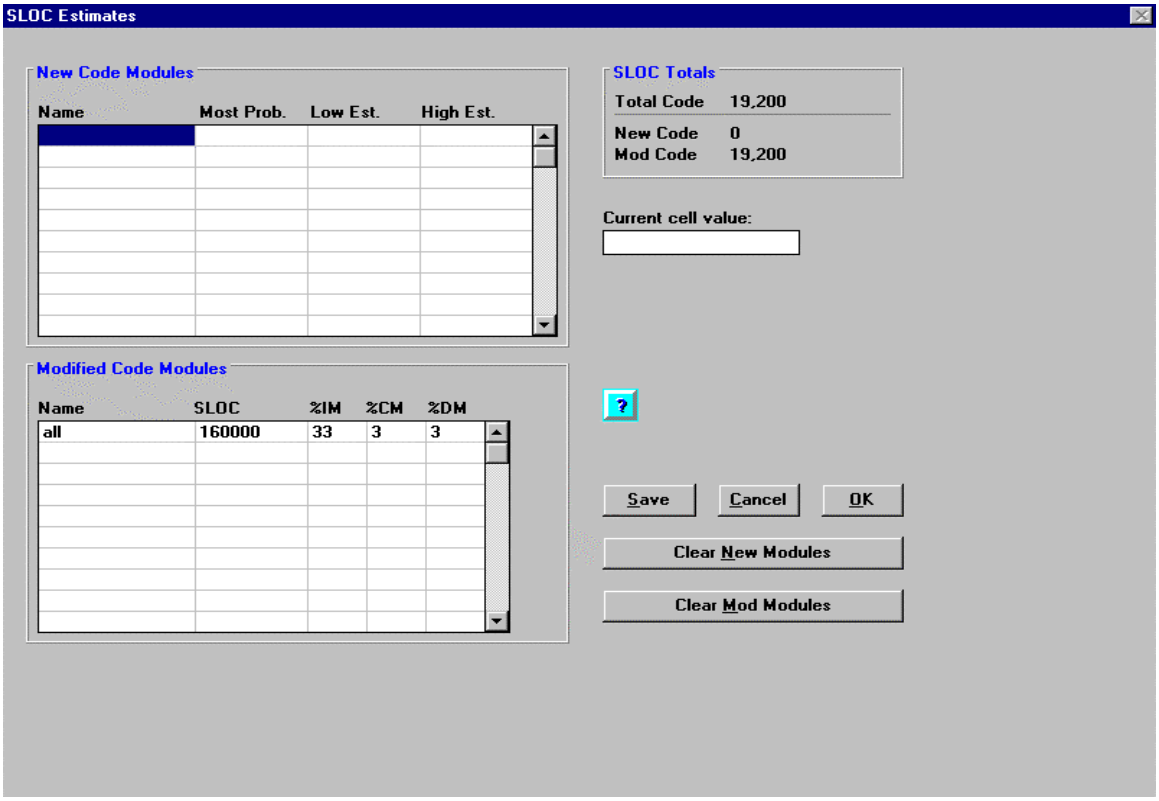
2. In some cases, it is necessary for CAOs to have duplicate contracts on individual stand-alone systems. The following method should be used when duplicate contracts are needed:

a. Only the MASTER BCI record should have the actual SLOC and Estimated Dollar Value. All duplicate BCI records ***must*** *have a SLOC count and Estimated Dollar value of "1".*

b. All duplicate BCI records must be clearly identifiable to original record (i.e. at the end of the contract number use a /1 for first duplicate, /2 for second, etc.)

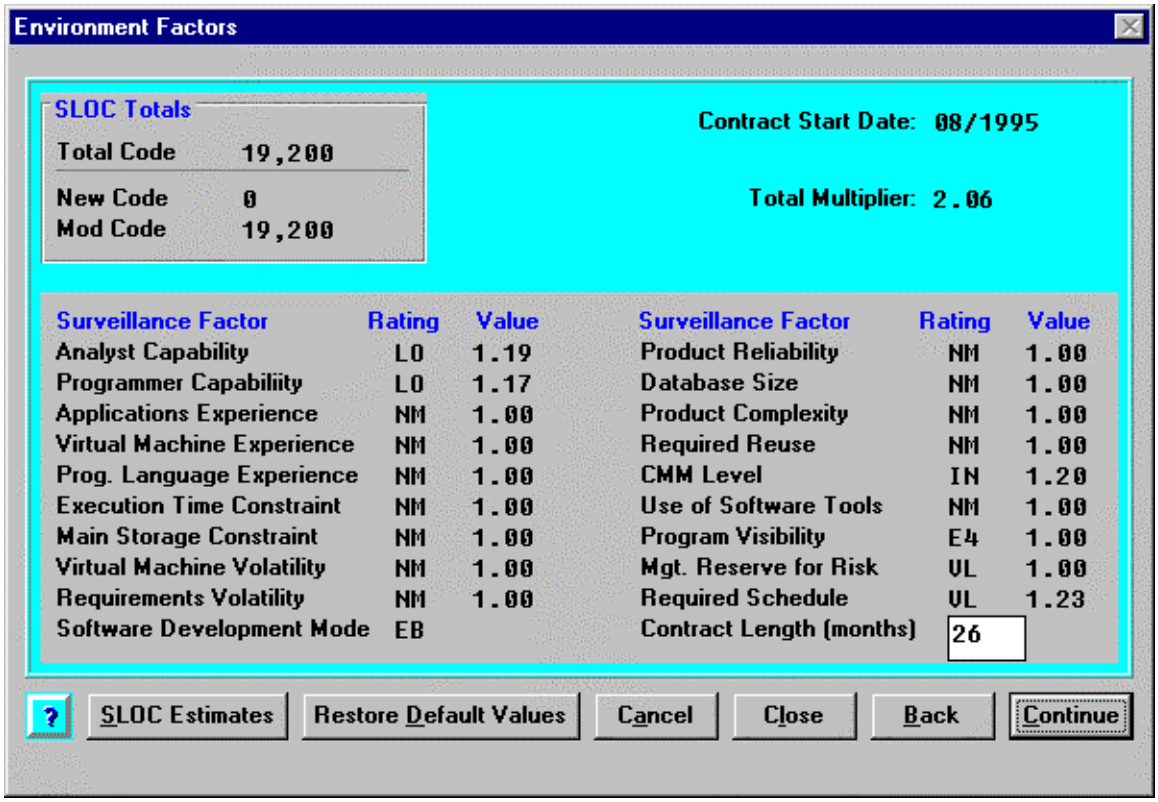
Example: F20936-94-0032 /1

2.2.3 Determine Equivalent SLOC: Once the BCI screen is entered, click on the SLOC (Source Lines of Code) input area and fill in the SLOC Estimates modules for both New and Modified Code. Please see Section 3: BCI, for more details. If you have subcontracted, Government Furnished Equipment (GFE), or Commercial off the Shelf (COTS) software, treat it as modified code. Enter the SLOC number and show a reasonable percentage for integration, and testing that may require at your facility to validate the functionality of the modified code. If the validation of the modified code is conducted at facilities other than yours, then you do not enter percentage for testing.



SOURCE LINES OF CODE SCREEN

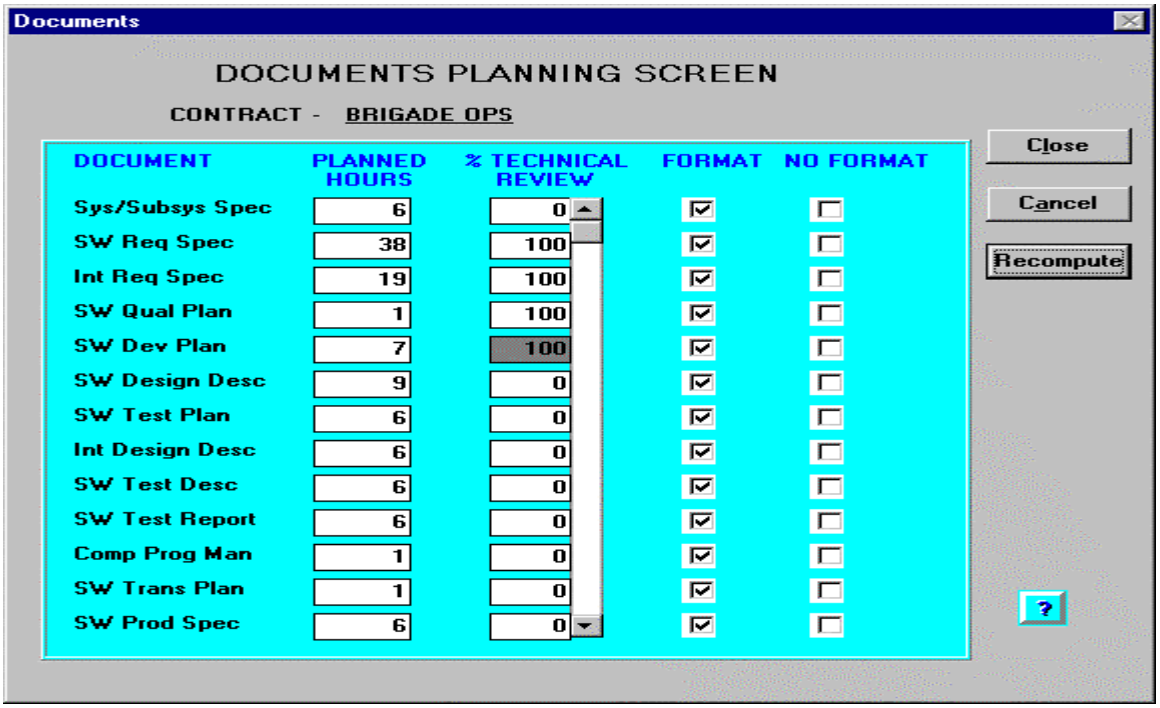
2.2.4 Determine the Environmental/Surveillance Factors: Using the SPECS Top Line Menu, select "Planning" and then select "BCI/Environmental/ Factors" to begin selecting surveillance factors. If there is a significant difference between ratings one or more CSCI, the environmental factors requires the averaging approach. Please see Appendix F for detailed instructions. If you still not sure about a environmental factor leave the value set at one.



ENVIRONMENTAL/SURVEILLANCE FACTORS SCREEN

2.2.5 Determine CDRLS/documents to be reviewed: Using the SPECS Top Line Menu select "Planning" and then select "Surveillance Plan/Document" to identify types of documents and estimated effort to review. Version 2.0 (and greater) allows the user to select whether there will be a Format or No Format review. Additionally, a sliding control bar is used to determine the percentage of the document that will under go a technical review. Please see Section 4: Surveillance Planning, for more details.

Example:
You plan to review Software Requirements Specification (SRS) - you select Format review and then identify that you plan to review only 25% of the document for technical purposes. Once you re-compute the hours, the "Planned Hours" box beside SRS will reflect estimated hours for performing a complete format review and technical review of 25% of the document.

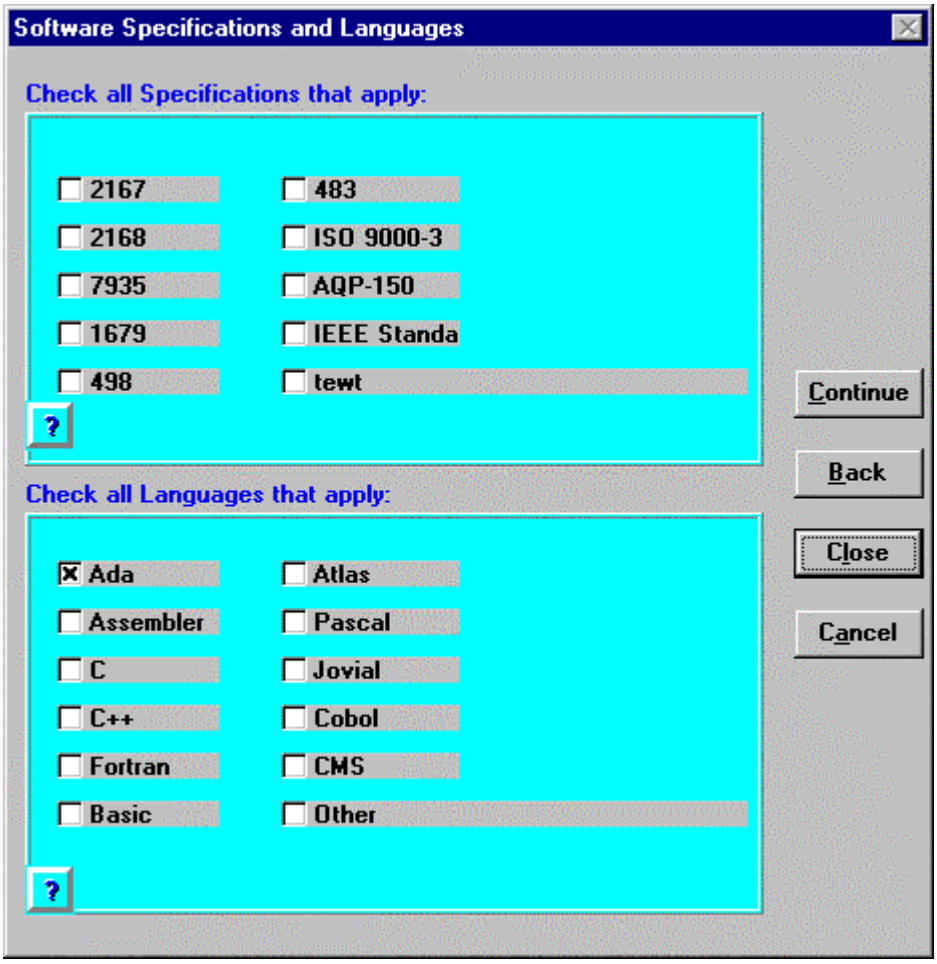


DOCUMENT PLANNING SCREEN

2.2.6 Identify Process/Activities for evaluation: Repeat the above process for identifying "Process", "Activities", and "Non-Development". The significant difference between the "Document" and the above categories is that "Process", "Activities", and "Non-Development" Hours are defaulted to nominal values but can be adjusted up to 300% based upon customer needs. Please see Section 4: Surveillance Planning, for more details.

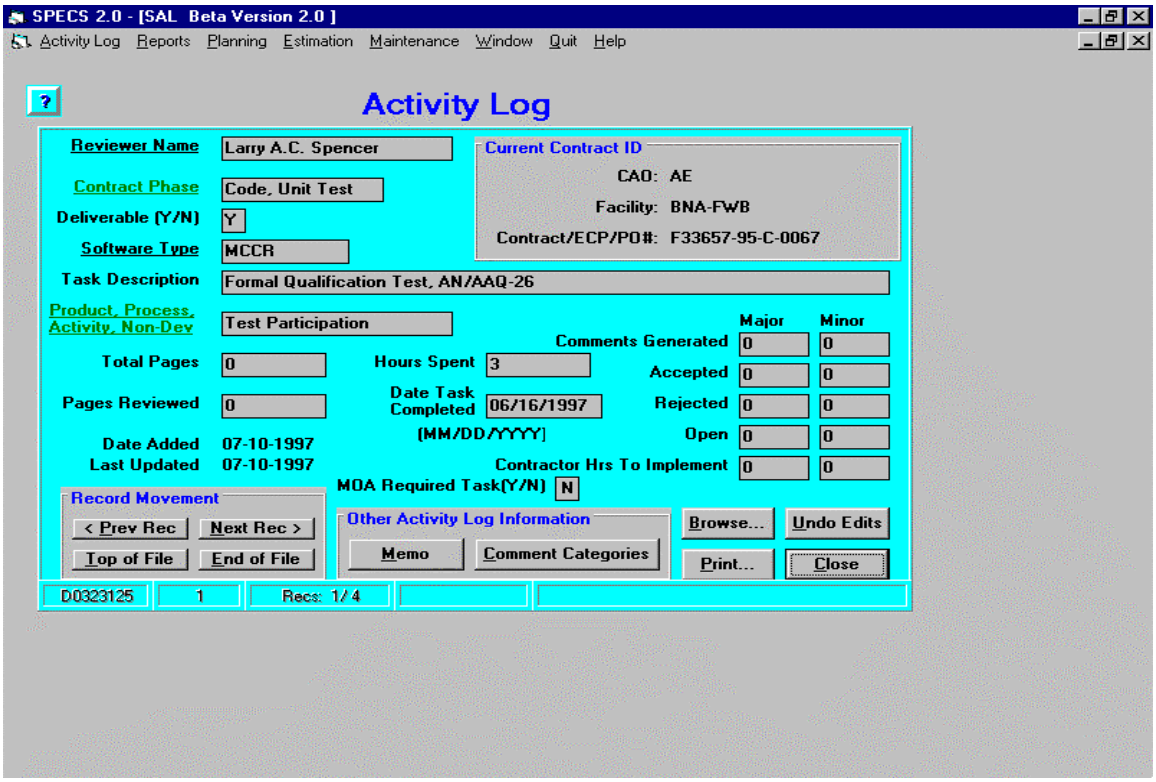
Example:
You are planning on Test Participation – you select "Activities" section to get the Activity Planning Screen and click on the % Normal Box for Test Participation. You can now adjust the sliding control bar to select the actual percentage of hours necessary to witness the testing.

2.2.7 Identify contract Specifications & Languages: Using the SPECS Top Line Menu select "Planning" and then select "BCI/Environmental/Specifications (Languages)". Select the development specification and languages that are on contract. Version 2.0 (and greater) allows you to capture "Other" types of specifications and languages that are not displayed on the screen. To do this, click on "Other" then click on the next box that appears and enter the specification or language used on the contract.



SPECIFICATION & LANGUAGE SCREEN

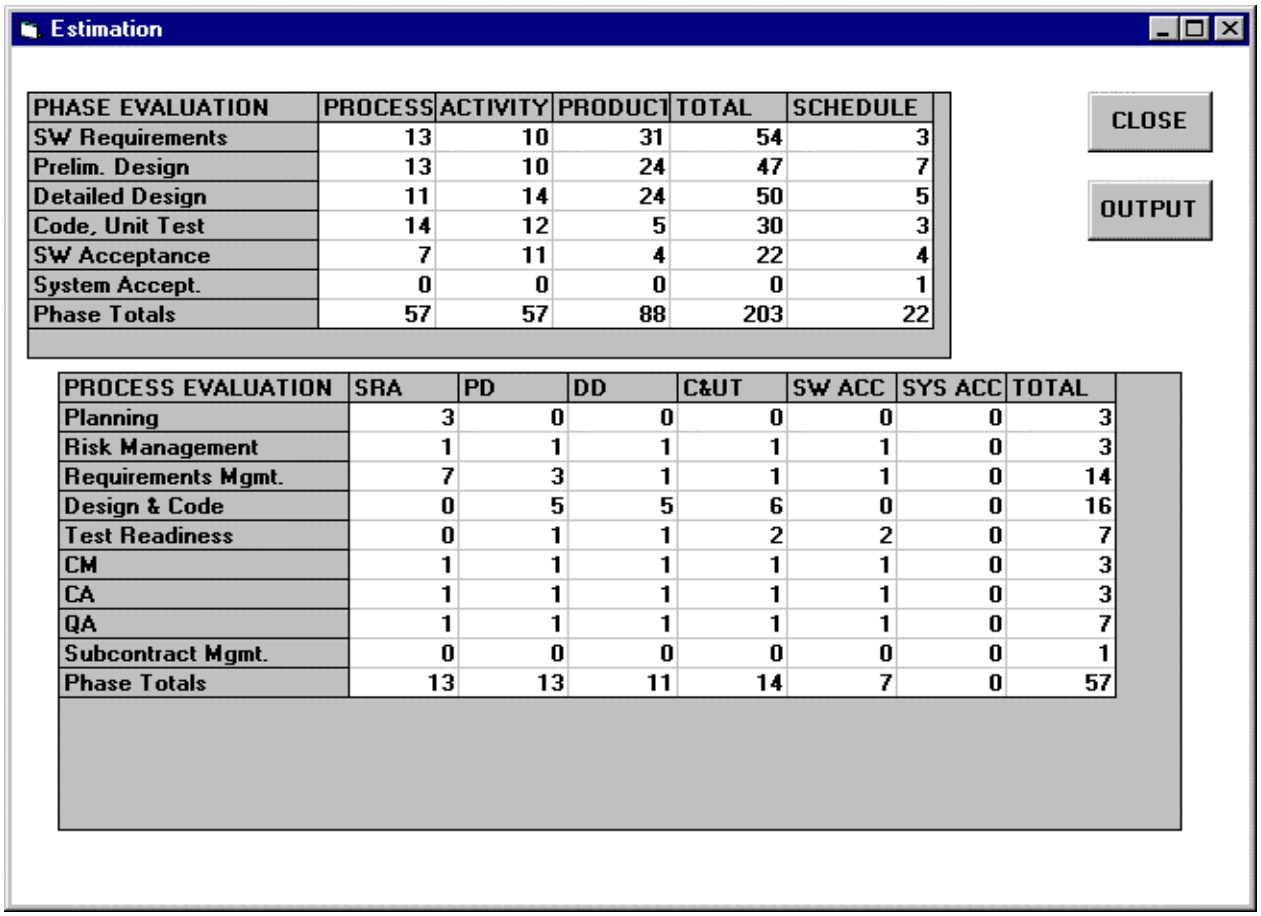
2.2.8 Activity Log: During your daily surveillance, you will start to enter data in the Activity Log, detailing activities and results. Please see Section 5: Activity Log, for more details.



ACTIVITY LOG SCREEN

2.2.9 Estimation: The estimating tools embedded in SPECS are used for two purposes. First, they are available to management to plan resource requirements based upon workload identified in the BCI section of SPECS. The estimating section also provides the software professional with estimated surveillance hours to be allocated for different tasks within different phases. The planning screens and the surveillance plan addendum use the results of this estimating section.

Estimating is listed under the SPECS top line menu "Estimating". There are three selections available (other than select and help) that will allow you to look at predicted surveillance times for the current contract, facility, or Contract Administration Office (CAO). All of the times displayed are adjusted based on any planning screen input you may have provided the application. Please see Section 6:Estimation, for more details.



PHASE EVALUATION	PROCESS	ACTIVITY	PRODUCT	TOTAL	SCHEDULE
SW Requirements	13	10	31	54	3
Prelim. Design	13	10	24	47	7
Detailed Design	11	14	24	50	5
Code, Unit Test	14	12	5	30	3
SW Acceptance	7	11	4	22	4
System Accept.	0	0	0	0	1
Phase Totals	57	57	88	203	22

PROCESS EVALUATION	SRA	PD	DD	C&UT	SW ACC	SYS ACC	TOTAL
Planning	3	0	0	0	0	0	3
Risk Management	1	1	1	1	1	0	3
Requirements Mgmt.	7	3	1	1	1	0	14
Design & Code	0	5	5	6	0	0	16
Test Readiness	0	1	1	2	2	0	7
CM	1	1	1	1	1	0	3
CA	1	1	1	1	1	0	3
QA	1	1	1	1	1	0	7
Subcontract Mgmt.	0	0	0	0	0	0	1
Phase Totals	13	13	11	14	7	0	57

ESTIMATION SCREEN

2.2.10 Reports & Queries: SPECS 2.0 produces a variety of useful reports and queries, both as disk files and in hard copy. They are listed here as information, with the contents of each. Specific instructions for getting these outputs are contained in the applicable chapters of the manual. The 'X' at the end of a filename indicates that they will automatically be sequentially numbered and not overwrite each other as more are made. Please see Section 7: Other Outputs for more details.

Title	Format	Purpose	Where to find it
Performance Measures	FILE and Printout	Metrics	Reports, Performance Measures
MCONX.TXT	FILE	Contract Estimate	Estimation, Contracts, Output
PLANX.TXT	FILE	Surveillance Plan	Reports, Surveillance Plan Output
RESX.TXT	FILE	Query Results	Reports, Queries, Output
ESTX.TXT	FILE	Facility Estimates	Estimate, Facility, Output
ESTX.TXT	FILE	CAO Estimates	Estimate, CAO, Output
EXPSQL.MDB	DATABASE	Export SQL list	Queries, Export
CCX.TXT	FILE	Effort Changes	Planning, BCI, Contract Effort Chgs
BCI Screen	Printout	One BCI entry	Planning, Select, Print

Activity Log Screen	Printout	One log entry	Activity Log, Select, Print